

ACTION MEMORANDUM

Non-Time-Critical Removal Action Idol City Mine Project



Malheur National Forest
Harney County, Oregon

February 2007

Table of Contents

	<u>page</u>
I. Purpose.....	1
II. Site Conditions and Background.....	1
A. Site Description.....	1
1. Removal Site Evaluation.....	1
2. Physical Location.....	1
3. Site Characteristics.....	1
4. Release or Threatened Release into the Environment of a Hazardous Substance.....	1
5. National Priority List Status.....	2
B. Other Actions to Date.....	2
1. Previous Actions.....	2
2. Current Actions.....	2
C. State and Local Authorities' Role.....	2
1. State and Local Actions to Date.....	2
2. Potential for Continued State/Local Response.....	2
III. Threats to Public Health or Welfare and the Environment, and Statutory and Regulatory Authorities.....	2
A. Threats to Public Health and Welfare.....	2
B. Threats to the Environment.....	2
IV. Endangered Determinations.....	3
V. Proposed Actions and Estimated Costs.....	3
A. Proposed Actions.....	3
1. Proposed Action Description.....	3
2. Short-term Impacts.....	3
3. Contribution to Removal Performance.....	3
4. Description of Alternative Technologies.....	3
5. Engineering Evaluation/Cost Analysis.....	3
6. Applicable or Relevant and Appropriate Requirements.....	3
7. Project Schedule.....	4
B. Estimated Costs.....	4
VI. Expected Change in the Situation Should Action be Delayed or not Taken.....	4
VII. Outstanding Policy Issues.....	4
VIII. Enforcement.....	4
IX. Decision/Recommendation.....	4
A. Removal Action Justification.....	4

I. Purpose

The purpose of this Action Memorandum (AM) is to document my decision to proceed with the non-time-critical removal action described in the Engineering Evaluation/Cost Analysis (EE/CA) for the Idol City Mine (Site) project area located in Harney County, Oregon. The EE/CA provides detailed analyses and the basis for the proposed response action and can be reviewed at the Supervisor's Office on the Malheur National Forest located in John Day, Oregon and can be obtained by going to:

<http://www.fs.fed.us/r6/malheur/projects/idol/index.shtml>

The selected Response Action will be executed following non-time-critical removal action processes as defined by:

- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA; 42USC 9604)
- National Oil and Hazardous Substances Pollution Plan (NCP; 40CFR Part 300)
- US Environmental Protection Agency's (EPA) *Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA*.

II. Site Conditions and Background

A. Site Description

Detailed site descriptions for the Site are located in the Abbreviated Preliminary Assessment (APA), Site Inspection (SI), and EE/CA documents.

1. Removal Site Evaluation
 - 2002 – CES conducted an APA.
 - 2003 – EA conducted an SI
 - 2005 – TechLaw conducted a Potentially Responsible Party (PRP) search
 - 2006 – MSE prepared an EE/CA
2. Physical Location
 - Legal – S4 and 9, T21S, R32E, WBM
 - Location – Latitude: N 43° 46' 41", Longitude: W 118° 53' 30"
 - USGS 7.5 Minute Topographic Map – Devine Ridge North
3. Site Characteristics
 - The Site extends from Trout Creek southward approximately 0.8 miles along the Gold Gulch drainage.
 - Elevation ranges from 5600 to 5800 feet above mean sea level.
 - The general terrain consists of a narrow valley within moderately steep mountainsides.
4. Release or Threatened Release into the Environment of a Hazardous Substance.
 - Water
 - Cadmium, lead and other metal concentrations exceeded ecological regulatory requirements and background concentrations.

- Sediment
 - Arsenic, cadmium, lead and other metal concentrations exceeded ecological regulatory requirements and background concentrations.
- Wasterock
 - Arsenic concentrations exceeded human health regulatory requirements and background concentrations.
 - Lead, mercury, and other metal concentrations exceeded ecological regulatory requirements and background concentrations.
- Additional information for sampling areas and results are included in the APA, SI, and EE/CA documents.

5. National Priority List Status

- The project site has not been proposed for the National Priority List (NPL), and a Hazard Ranking System (HRS) rating has not been calculated.

B. Other Actions to Date

1. Previous Actions

- February 2003 – APA report completed.
- December 2003 – SI report completed.
- February 2005 – PRP report completed.
- June 2006 – EE/CA report completed.

2. Current Actions

- None

C. State and Local Authorities' Role

1. State and Local Actions to Date

- The removal action will comply with state Applicable, Relevant and Appropriate Requirements (ARARS) to the extent practicable.

2. Potential for Continued State/Local Response

- None

III. Threats to Public Health or Welfare and the Environment, and Statutory and Regulatory Authorities

A. Threats to Public Health and Welfare

There is a threat to public health or welfare as set forth in the NCP [40CFR 300.415(b)(2)]. Areas of concern are wasterock sources and sediment contaminated with arsenic, cadmium, lead and other metals that migrate into Gold Gulch.

B. Threats to the Environment

1. It is likely that plants and invertebrates may be at risk at the Site. However, while the plants and invertebrates within this localized area may be at risk, their populations are unlikely to be significantly impacted within the vicinity of the project area because of the localized and small exposure areas.

2. There are risks to the aquatic ecological receptors from release of sediments from the site contaminated with arsenic, cadmium, and lead.
3. The removal of contaminated material from the area will eliminate future risks.

IV. Endangerment Determination

The release of hazardous substances from the project site, if not addressed by implementing the removal action selected in this AM, will continue to present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. Proposed Actions and Estimated Costs

A. Proposed Actions and Estimated Costs

1. Proposed Action Description
 - Alternative 3 and 4 – Excavation and On-Site Disposal, and Treatment of Adit Discharge, respectively.
 - o Remove miscellaneous building and other debris within the contaminated wasterock/tailings area and from the open shaft. Other buildings will not be disturbed
 - o Seal the open shaft with wasterock material
 - o Excavate and remove 2,200 cubic yards of wasterock material and dispose in an on-site repository.
 - o Install a bat gate on the open adit.
 - o Grading of collapsed adits.
 - o Grade remaining waste rock material for positive drainage.
 - Cover area with topsoil
 - Seed and mulch all disturbed areas.
 - o Water discharge from the adit will be contained by a retention pond.
2. Short-term Impacts
 - Short-term impacts will be minimal and primarily related to removal activities at the site.
3. Contribution to Removal Performance
 - This is a non-NPL site and no further removal actions are anticipated.
4. Description of Alternative Technologies
 - Numerous technologies were considered. Refer to Table 10 – *Removal Action Technology Screening Matrix* located in the table section of the EE/CA.
5. Engineering Evaluation/Cost Analysis
 - An EE/CA was prepared by MSE, consultants to the Malheur National Forest, and is incorporated in this AM by reference.
 - The EE/CA was released for a thirty-day public comment period to solicit comments and concerns.
 - o No comments were received.

6. Applicable or Relevant and Appropriate Requirements
 - ARARs are listed in Appendix B of the EE/CA. These include both Federal and State ARARs.
7. Project Schedule
 - The removal action is proposed for the spring of 2010, or sooner, depending on funding.

B. Estimated Costs

Estimated removal action cost for the project is \$260,000. A detailed cost breakdown is shown in Table 11 of the EE/CA.

VI. Expected Change in the Situation Should Action be Delayed or not Taken
There will be no change in the current situation.

VII. Outstanding Policy Issues
None

VIII. Enforcement
None

IX. Decision/Recommendation

A. Removal Action Justification

The NCP states that an appropriate removal action may be conducted at a site when a threat to human health or welfare or the environment is identified. The removal action is undertaken to abate, prevent, minimize, stabilize, mitigate, or eliminate the release or the threat of a release at a site. Section 300.415(b)(2) of the NCP outlines eight factors to be considered when determining the appropriateness of a removal action. The applicable factors are outlined below and provide justification for completing the removal action. These factors are assessed against the preferred alternative in Section 8.0 of the EE/CA.

- “Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.”
 - The exposure to human and ecological receptors is reduced and controlled by removal of the contaminated wasterock and tailings material.
- “Actual or potential contamination of drinking water supplies or sensitive ecosystems.”
 - There are no impacts to drinking water sources.
 - There are potential impacts to aquatic benthic macroinvertebrates and fish from contaminated materials entering into Gold Gulch.
- “High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate.”
 - Surficial wasterock and soil is contaminated with metals.
 - Significant human risks are not expected from exposure to surface and pore water, and sediment in Gold Gulch.
- “Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.”

- Heavy rainfall and rain on snow events wash contaminated material into Gold Gulch.
- “Other situations or factors that may pose threats to public health or welfare of the United States or the environment.”
 - Public use of the Site will not be controlled following implementation of the preferred alternative as it is relatively remote.

My decision is to implement Alternative 3 – Excavation and On-Site Disposal and Alternative 4 – Treatment of Water Discharge at the Site, located in Harney County on the Malheur National Forest. This decision is based on the Administrative Record for the project site.

Conditions at the project site meet NCP 40CFR, section 300.415(b)(2) criteria for a removal and I recommend approval of the proposed removal action.

Recommended: /s/ Gary L. Benes
Gary L. Benes
Forest Supervisor
Malheur National Forest

Date: 2-22-2007

Approved:

Richard W. Sowa
RICHARD W. SOWA
Director of Engineering
Pacific Northwest Region

Date: 2/23/2007

